INTRODUCTION

This report presents the results and interpretations of final Phase III archaeological data recovery excavations at two historical archaeological sites in central Kent County, Delaware (Figure 1, Plate 1): the Richard Whitehart Plantation (7K-C-203C) and John Powell Plantation (7K-C-203H). Both sites are located along the south side of the Leipsic River near its confluence with Alston Branch in Little Creek Hundred, Delaware, on the former Pollack property. Data recovery investigations focused on historical occupations dating from ca. 1681-1735. Fieldwork, artifact analyses, and report preparation were carried out between June 1991 and September 1994 by archaeologists from the University of Delaware Center for Archaeological Research (UDCAR). Funding for the project was provided by the Delaware Department of Transportation (DelDOT) and the Federal Highway Administration (FHWA) to fulfill regulatory obligations under Section 106 of the National Historic Preservation Act (amended). This archaeological work was done in compliance with the National Historic Preservation Act to evaluate the effects of the proposed construction of State Route 1 on significant, or potentially significant, cultural resources as defined by the National Register of Historic Places (36 CFR. sec. 1202).

The Richard Whitehart and John Powell plantations were first identified by pedestrian survey and field testing during the Phase I location/identification survey of the 50-acre Pollack property which was known to contain the large Pollack Prehistoric Site (7K-C-203) which had been determined to be eligible for the National Register of Historic Places (Riley et al. 1994; Grettler, Seidel, and Kraft 1994; Custer et al. 1994). The 50-acres of plowed fields of the Pollack property were subjected to intensive archaeological survey because they were scheduled to be excavated as a borrow pit for the construction of the Early Action Segment of the State Route 1 Relief Route. After all of the borrow materials were excavated, the 50 acre Pollack field was to be converted to wetlands. Subsequent Phase II testing of the Pollack property in January and February of 1991 identified the remains of the two late seventeenth and early eighteenth century plantations within the prehistoric site (Grettler, Seidel, and Kraft 1994). Neither site was identified by prior archival research, although a high potential for such early sites in this part of the State Route 1 Corridor was identified by Grettler et al. (1991), Bachman, Grettler, and Custer (1988), and Custer, Bachman, and Grettler (1987).

Phase II field investigations conducted at the Whitehart and Powell plantations recovered diagnostic late seventeenth and early eighteenth century artifacts in intact archaeological pit features. English brown stonewares, Rhenish blue and gray stonewares, and early English Staffordshires were among the diagnostic artifacts recovered from both sites. Small brick fragments and wrought nails confirmed the presence of structures. English gunflints, lead shot, bone, oyster shell, and large-diameter white clay pipe stem fragments suggested a wide range of domestic activities and helped to date the sites.

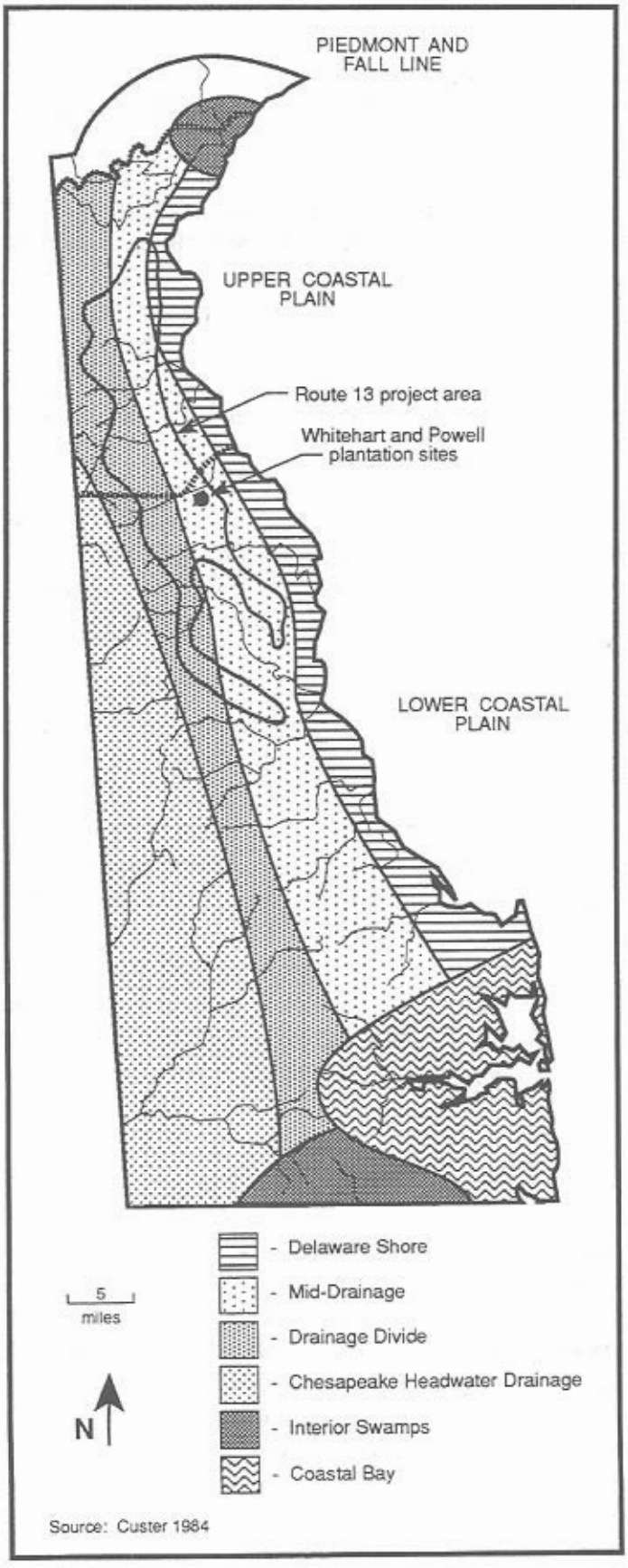
The presence of intact cultural features below the plow zone at both sites allowed for the potential recovery of significant archaeological data on these early colonial farmsteads. Prior to the discovery of the Whitehart and Powell plantations, the only other colonial farmstead excavated in Kent County was the William Strickland Plantation (Catts et al. 1994) which dates to a slightly later era (ca. 1726 - 1764).

PLATE 1

Aerial View of Richard Whitehart Plantation (7K-C-203C) and John Powell Plantation (7K-C-203H)

FIGURE 2

Physiographic Zones of Delaware



Thus, the archaeological remains preserved at the Whitehart and Powell plantations were significant because they could provide data on colonial lifeways that had never before been studied in central Delaware. Consequently, both sites were determined to be eligible for listing on the National Register of Historic Places under Criterion "D." Because both sites were scheduled for destruction by the borrow pit, data recovery excavations were undertaken to collect the significant information.

In the following pages, the Richard Whitehart and John Powell plantations will be discussed in terms of their environmental setting, their relationship to historical settlement patterns, and specific historical and archaeological research questions. Field methods and the research design governing the Phase III investigations will be presented, followed by a discussion of the results of feature excavations and artifact and soil analyses for each site. Next, both sites will be discussed from both intra- and inter-site perspectives. Finally, conclusions discussing both sites from local and regional perspectives will be presented.

Environmental Setting

The Early Action Segment of the State Route 1 Relief Route is located primarily in Kent County and the Low Coastal Plain physiographic province (Figure 2). The Low Coastal Plain is underlain by the sand deposits of the Columbia Formation (Jordan 1964:40) and reworking of these sediments has produced a relatively flat and featureless landscape. Elevation differences range up to 30 feet (10 meters) and these small differences are moderated by long and gradual slopes. These differences are, nonetheless, sufficient to cause differential distributions of plant and animal species across the landscape. Watercourses are tidal and brackish along their middle and lower reaches with extensive fringing marshes increasingly prevalent in their lower sections.

The Early Action Segment of State Route 1 crosses several major east-flowing streams in Kent County, including Little River, Leipsic River, Mill Creek, and Duck Creek. All drain to Delaware Bay and the latter three show sizable tidal movement at the point where the proposed roadway will cross. Several named and unnamed low-order tributaries of these streams are also traversed. Alston Branch, located within 200 feet of the Whitehart and Powell plantations, is one such named, low-order tributary.

A variety of soils are present throughout the State Route 1 Relief Route. The 24 individual soil series present can be grouped into primarily the Sassafras-Fallsington and Othello-Matapeake-Mattapex associations (Matthews and Ireland 1971). The central part of the State Route 1 Corridor in the Smyrna-Dover area, including the project area, commonly traverses red-brown and yellow-brown moderately- to well-drained Sassafras sands, sandy silts, and silty loams. These Sassafras sandy loams are highly productive and have been extensively farmed. The underlying sand and gravel deposits of these Sassafras soils also make high quality construction materials and these sands and gravels were the target materials for borrow pit excavations at the Pollack property.

Lower elevation areas are comprised of gray and buff moderately- to poorly-drained Fallsington and Othello clayey sands, sandy clays, and silty clays which support mixed hydrophytic plant species. Such less well-drained soils were typically used as woodlots and pasturage in the historical period. All of the soil types are distributed in the project area in a complex mosaic of well-drained and poorly-drained settings.

Since the arrival of Europeans, land use in the project area has been primarily agricultural. Dispersed farmsteads ranging in size from 100 to 1200 acres were initially established in the late seventeenth century; however, over the years local farms have been slowly decreasing in size. Historically, the population of the Dover-Smyrna area was involved in agriculture and its supporting occupations, including milling, shipping, and blacksmithing. A brief economic boom in the Smyrna-Dover area in the mid-nineteenth century initiated a trend towards commercial and urban development that continues today. This recent development was the result of improvements in transportation and commercial truck farming. Dover, in particular, grew as state government and light manufacturing industries expanded to meet the needs of the state. Recent strip commercial development along Route 13 has not yet reached the project area, but improvements to transportation such as State Route 1 will certainly accelerate the commercial and urban development of the Leipsic River drainage.

Previous Archaeological Investigations

The Pollack Site (7K-C-203) was identified and mapped during pedestrian surveys in 1985 and 1988. The first survey initially identified 7K-C-203 as a prehistoric site consisting of a surface scatter of flakes and fire-cracked rock along the edge of a woodlot bordering the Leipsic River (Bachman, Grettler, and Custer 1988). Ground surface visibility was poor, less than five percent, for the survey. A subsequent pedestrian survey in August, 1988 under slightly improved surface visibility, located a larger continuous scatter of fire-cracked rock and flakes along the present woodline south of the Leipsic River. This woodline corresponds to a sandy bluff which rises approximately 15 feet above the

swampy floodplain of the river. Additional subsurface tests in the woodlot confirmed that the site extended into the woods bordering the river. No diagnostic seventeenth or early eighteenth century historical artifacts were found by either initial pedestrian survey.

Prehistoric artifacts were found in both plow zone and intact subsoil deposits by the initial Phase I testing. Evidence of intact prehistoric features, intact artifact deposits as deep as 70 centimeters below surface, and diagnostic Woodland I and II prehistoric artifacts were found. A significant percentage of non-local argillite and rhyolite artifacts were also present. On the basis of these prehistoric site attributes, 7K-C-203 was determined to be eligible for listing on the National Register of Historic Places as part of the Middle Leipsic River Valley Archaeological District.

Additional Phase I and II survey was accomplished in the plowed portions of 7K-C-203 during the spring of 1991 prior to borrow activities and wetlands construction. This survey was undertaken to locate and identify all significant cultural resources in the Pollack property to be impacted by proposed borrow pit excavation and wetland replacement activities. Additional survey was undertaken because of low surface visibility over the entire 50-acre field during the initial surveys, and the high potential for significant cultural remains indicated by earlier surveys.

Additional Phase I survey of the Pollack field undertaken in 1991 consisted of a pedestrian survey of the entire field and adjacent woodlot, a controlled surface collection where visibility permitted, and the excavation of systematic shovel test pits over an area approximately 600 meters long and 300 meters wide. These tests were located along a single grid set over the entire 50-acre parcel.

The additional Phase I testing located significant prehistoric and historical deposits over most of the 50-acre Pollack field. Artifacts, however, were concentrated along the edges of the field bounding the woodlot and Leipsic River to the north and Alston Branch to the east and south. Additional Phase II testing was concentrated in these areas to define the limits of significant loci and to generate a meaningful data recovery plan if avoidance of the site and preservation of the site proved impossible. As the Pollack Site had already been listed on the National Register of Historic Places, Phase II testing emphasized site limits and developing an accurate data recovery plan. Phase II testing of the site was conducted in the spring of 1991, immediately following the Phase I survey. Phase II consisted of the excavation of 1,585 1- x 1-meter test units in the three general areas of concentrated historical and prehistoric artifacts located by the Phase I survey (Plate 2). These test units were dug as part of a one percent sample of the nearly 20 acres of the Pollack field where artifacts were found during Phase I testing. The one percent sample consisted of the excavation of one 1- x 1-meter test unit in every 10- x 10- meter block.

Phase II testing located eight distinct loci of historical and prehistoric activity at the Pollack Site (Figure 3). Significant prehistoric components were found in seven areas (7K-C-203A, B, C, D, E, F, and G). Significant late seventeenth and early eighteenth century historical components were found in two areas, 7K-C-203C and 7K-C-203H. All eight areas were defined by the presence of significant concentrations of artifacts, cultural features, and the presence of intact, artifact-bearing strata. The presence of these characteristics clearly confirmed the eligibility of 7K-C-203 for listing in the National Register of Historic Places.

PLATE 2

Aerial View of Test Excavations in the Vicinity of the Richard Whitehart Plantation

Additional archival research identified the late seventeenth and early eighteenth century historical site in 7K-C-203C as the Richard Whitehart Plantation. A total of 256 Phase II test units were dug in Area C and diagnostic early historical artifacts were concentrated in a 50-meter square area in the northeast corner of this section of the Pollack field (Figure 4). Diagnostic late seventeenth to early eighteenth century artifacts from Area C included kaolin pipe stem fragments, cut and wrought nails, and olive green bottle glass fragments. Diagnostic early ceramics included sherds of slip-decorated redwares, Staffordshire earthernwares, and English brown salt-glazed stonewares. A representative sample of these diagnostic historical artifacts is shown in Plate 3. Square, shovel-cut post holes and

FIGURE 3

Location of the Richard Whitehart and John Powell Plantation Sites, and Areas A-H at the Pollack Site (7K-C-203C)

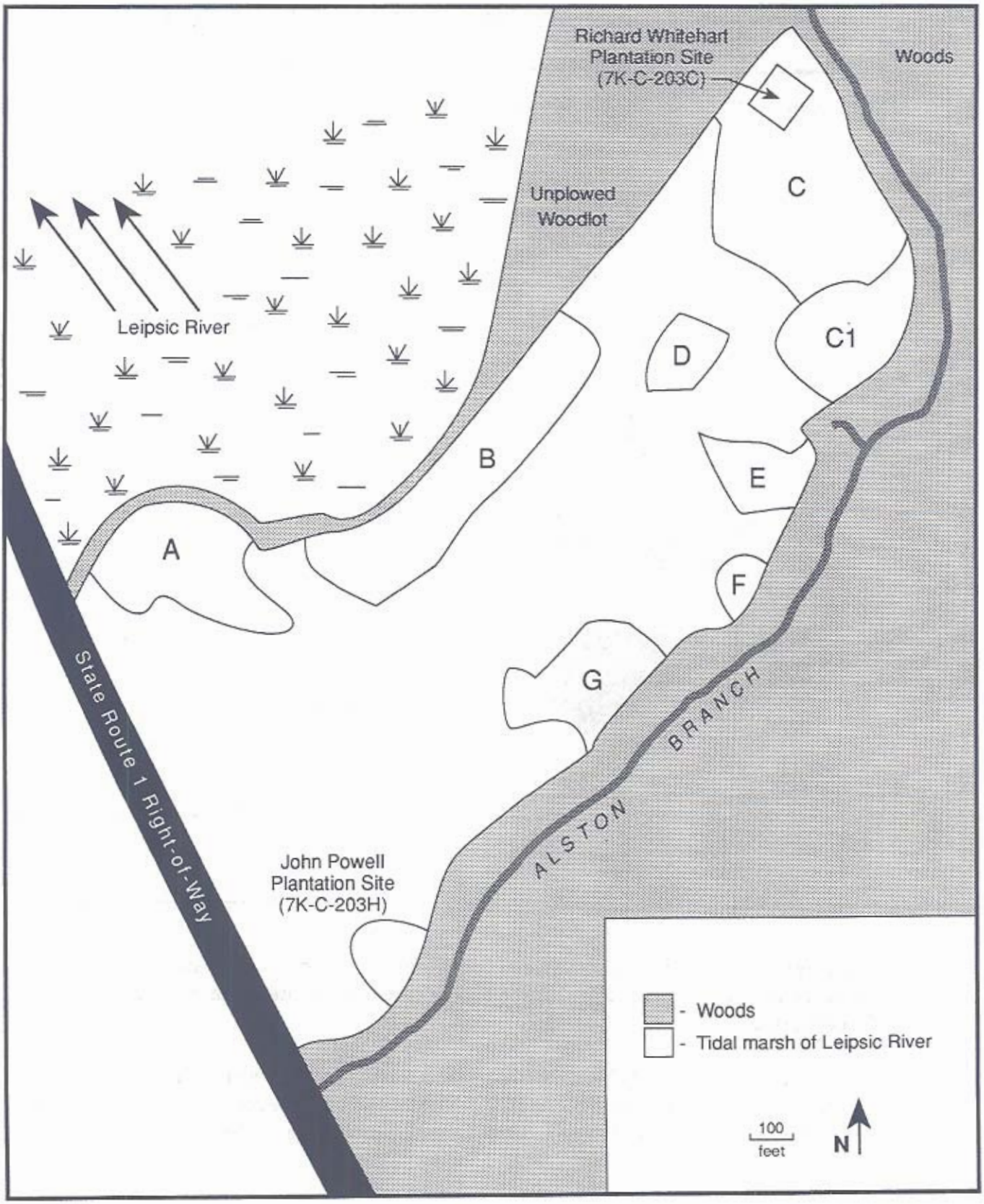
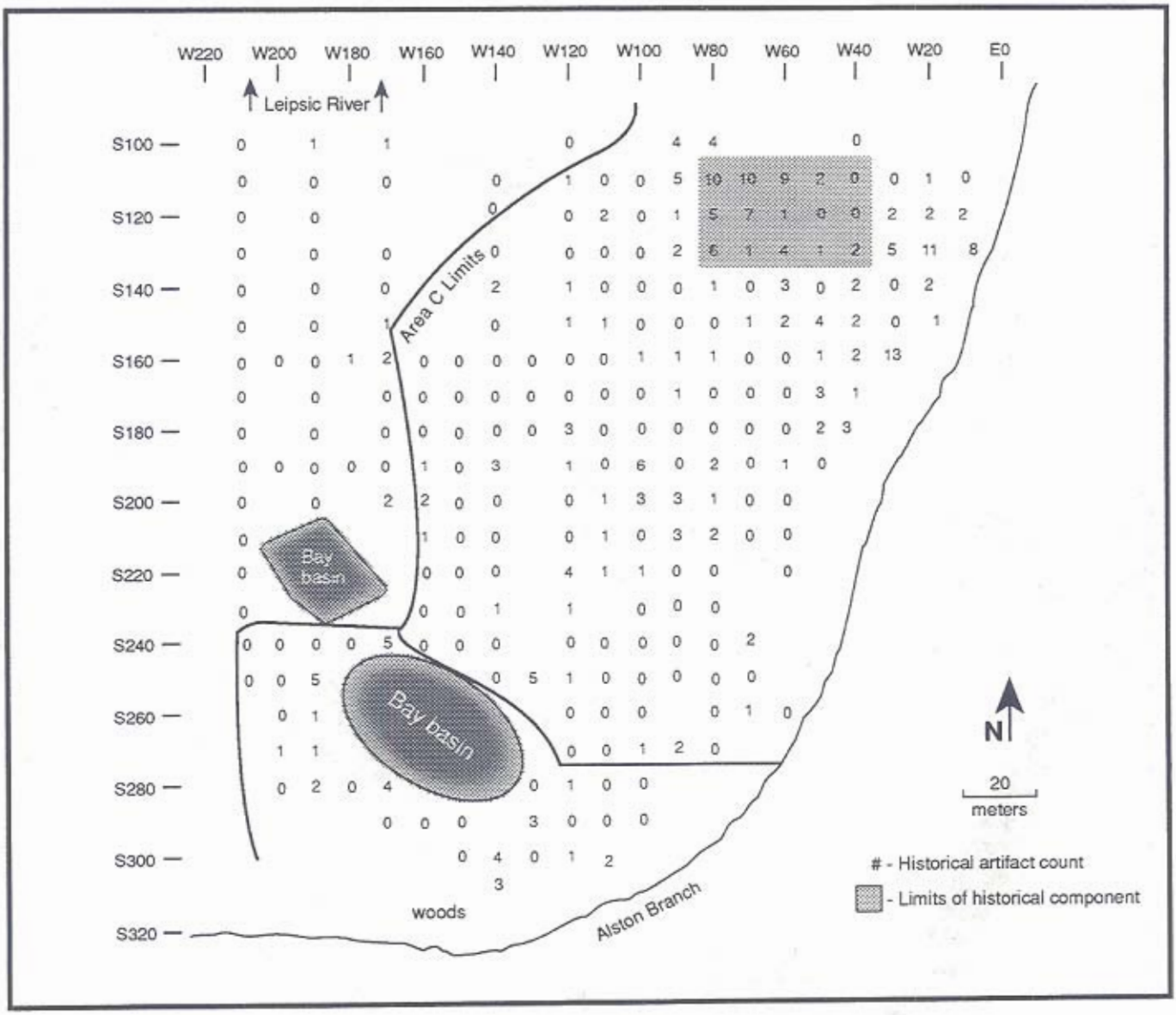


FIGURE 4

Site Limits and Historical Artifact Counts, Richard Whitehart Plantation (7K-C-203C)



trash deposits were also found. The presence of both domestic and architectural artifacts and features indicated the remains of a farmstead, and thus a high potential for additional intact historical features and artifact deposits.

Additional archival research identified the late seventeenth and early eighteenth century historical site in 7K-C-203H as the remains of the John Powell Plantation. The types of artifacts found in Area H were similar to those from Area C (Plate 4). Three cultural features, the remains of a cellar hole, a post

PLATE 3

Late Seventeenth and Early Eighteenth Century Artifacts from Phase I and Phase II Testing at the Richard Whitehart Plantation

A - Bellarmine Stoneware

B - Comb Decorated Staffordshire

C - Rhenish Blue and Gray Stoneware

D - White Clay Pipe

E - English Gunflints

F - Wrought Nails

1 inch
2 cm

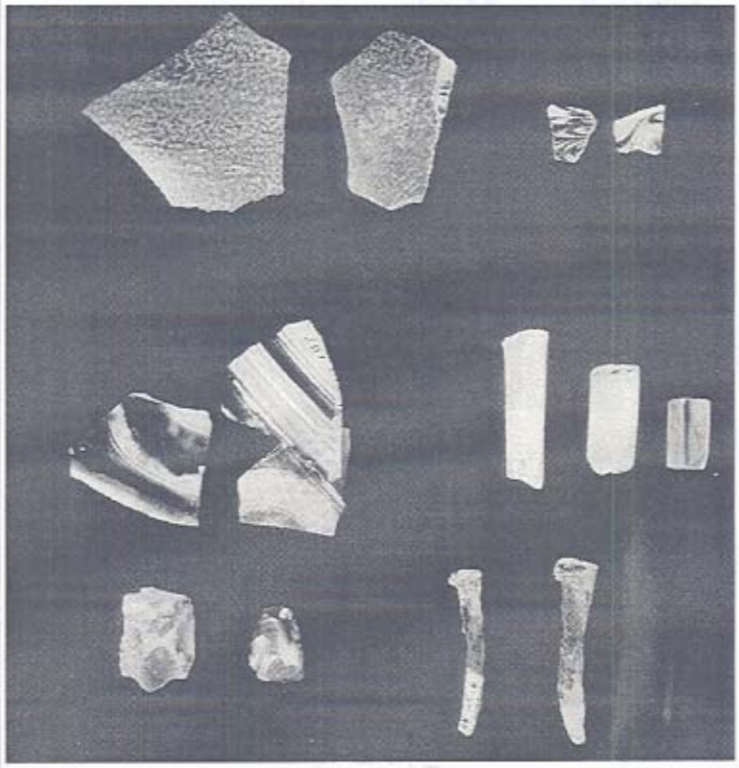


PLATE 4

Late Seventeenth and Early Eighteenth Century Artifacts from Phase I and Phase II Testing at the John Powell Plantation

A - Slip Decorated Redware

B - Bellarmine Stoneware

C - Wrought Nails

1 inch
2 cm

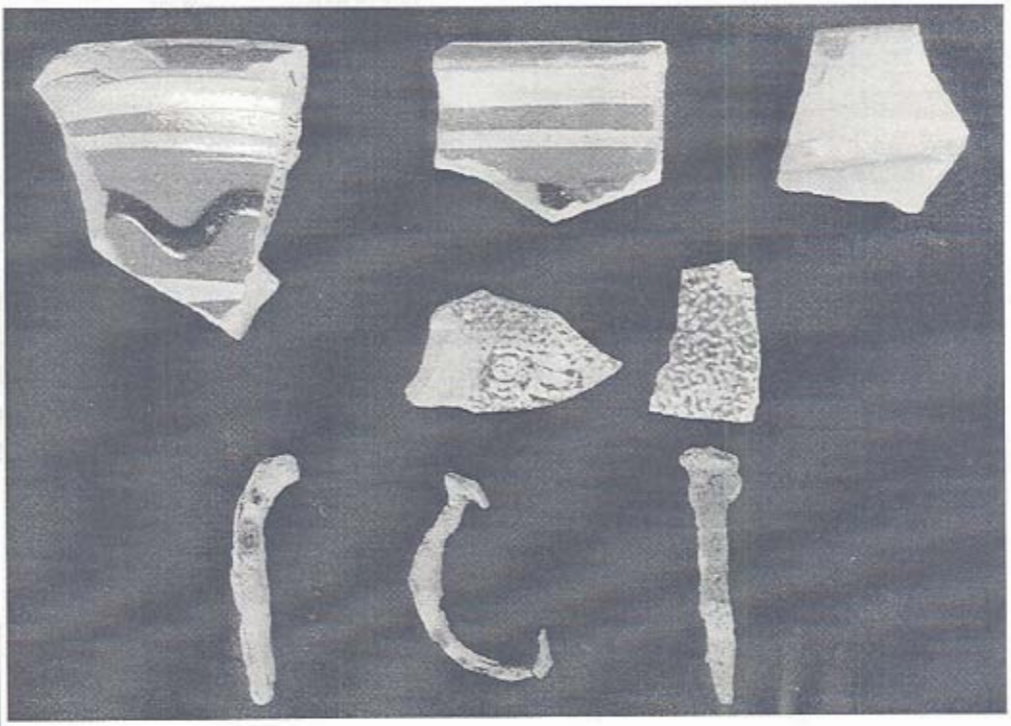
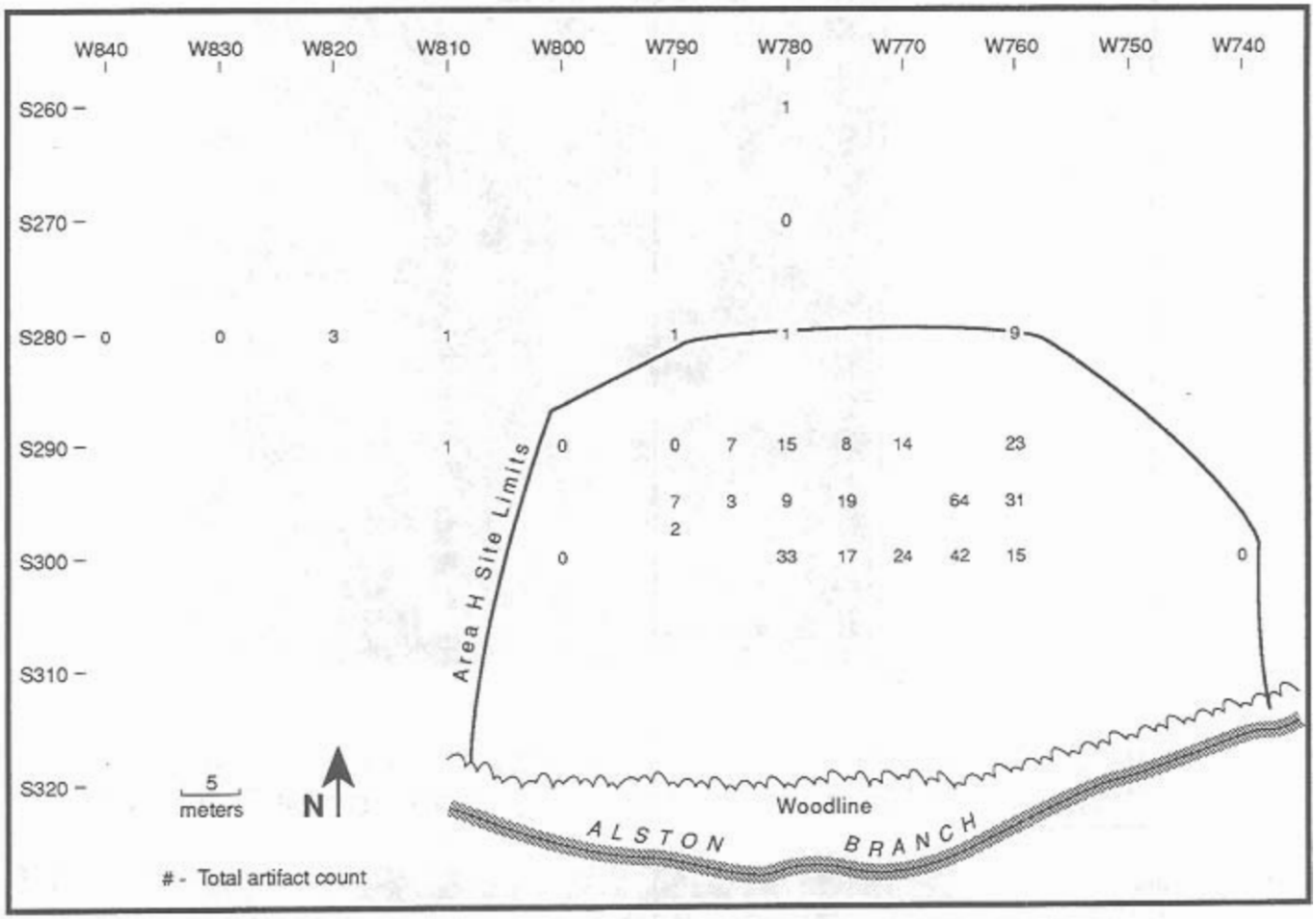


FIGURE 5

Site Limits and Historical Artifact Counts, John Powell Plantation (7K-C-203H)



mold, and a trash deposit, were found by Phase II testing. A total of 32 Phase II test units were excavated at 7K-C-203H. The limits and total historical artifact counts determined by Phase II testing in Area H are shown in Figure 5.

The presence of historical and prehistoric artifacts and cultural features in both plow zone and undisturbed contexts in Areas C and H led to the determination that both loci were a significant part of the Pollack Site. The large size and integrity of both sites indicated a high potential for additional intact cultural remains. Thus, the Whitehart and Powell sites were determined to warrant Phase III data recovery operations if proposed borrow pit and wetlands reclamation excavations were undertaken.